THE FIRST RECORD OF *PURPURICENUS GLOBULICOLLIS* (COLEOPTERA: CERAMBYCIDAE) FROM UKRAINE

O. I. Gubin & V. V. Martynov

Ukrainian Entomological Society

E-mail: helmintolog@mail.ru
E-mail: martynov.scarab@yandex.ua

Gubin, O. I. & Martynov, V. V. The first record of *Purpuricenus globulicollis* (Coleoptera: Cerambycidae) in Ukraine. Summary. The longhorn beetle *Purpuricenus globulicollis* Dejean, 1839 is found and recorded for the first time from Ukraine. The distribution of *P. globulicollis* and closely related *P. kaehleri* Linnaeus, 1758 are briefly characterized. The comparative table of diagnostic features of these species is provided.

Key words: Coleoptera, Cerambycidae, *Purpuricenus, P. globulicollis*, *P. kaehleri*, Ukraine, first record.

Губін, О. І. і Мартинов, В. В. Перша знахідка *Purpuricenus globulicollis* (Coleoptera: Cerambycidae) в Україні. Резюме. Жук-вусач *Purpuricenus globulicollis* Dejean, 1839 вперше знайдений в Україні. Коротко охарактеризовано ареали *P. globulicollis* і близького виду *P. kaehleri* Linnaeus, 1758. Подано порівняльну таблицю діагностичних ознак цих видів.

Ключові слова: Coleoptera, Cerambycidae, *Purpuricenus, P. globulicollis*, *P. kaehleri*, Україна, перша знахідка.

Губин, А. И. и Мартынов, В. В. Первая находка *Purpuricenus globulicollis* (Coleoptera: Cerambycidae) в Украине. Резюме. Жук-усач *Purpuricenus globulicollis* Dejean, 1839 впервые найден в Украине. Кратко охарактеризованы ареалы *P. globulicollis* и близкого вида *P. kaehleri* Linnaeus, 1758. Дана сравнительная таблица диагностических признаков этих видов.

Ключевые слова: Coleoptera, Cerambycidae, *Purpuricenus, P. globulicollis*, *P. kaehleri*, Украина, первая находка.

Introduction

Hitherto, the genus *Purpuricenus* was represented only by three species occurring in Ukraine (Bartenev, 2004, 2009; Danilevsky, 2007). Among them, *P. kaehleri* Linnaeus, 1758 occurs throughout most of the country, and the other two species, *P. baeckmanni* Danilevsky, 2007 and *P. budensis* Götz, 1783, are encountered only in the Crimea (Bartenev, 2009; Bartenev & Terekhova, 2011; Danilevsky, 2015). While treating the longhorn beetles of South-Eastern Ukraine a specimen of *P. globulicollis* Dejean, 1839 has been already listed by Martynov & Pisarenko (2004) as *P. kaehleri* (misidentification) among the specimens of the latter species.

Material and methods

The photographs were taken using a Zeiss AxioCam Erc 5s camera, mounted on Carl Zeiss Stemi 2000-C binocular microscope with Zen 2012 (blue edition) software package, and subsequently enhanced with Adobe Photoshop CS5 software package. Nomenclature of taxa follows the Catalogue of Palaearctic Coleoptera (Löbl & Smetana, 2010) with additions and changes by Danilevsky (2016). All the specimens from this study are deposited in personal collections of authors (Donetsk, Ukraine).

Purpuricenus globulicollis Dejean, 1839

Material examined: Ukraine: Donetsk Reg., Sloviansk Dist., Bohorodychne vill. env., 16.07.1999, 1 ♂ (N. Efimova).

Purpuricenus kaehleri (Linnaeus, 1758)

Material examined: Ukraine: Luhansk Reg., Stanytsia-Luhanska Dist., Luhansk Natural Res., Stanichno-Luhanskoye branch, 10.06.1999, 1 ♂; idem, 15.06.1999, 1 ♂ (V. Martynov); idem, 26.06.1999, 4 ♂, 1 ♀; idem, 08.06.2002, 2 ♂, 1 ♀ (V. Martynov, T. Pisarenko); Sverdlovsk Dist., Luhansk Natural Res., Provalskyi Step branch, 22.06.2002, 1 ♂ (V. Martynov); Donetsk Reg., Krasnyi Lyman (Lyman) Dist., Torske vill., 09.07.1998, 1 ♀ (V. Martynov); Artemivsk (Bakhmut) Dist., Yenakiieve env., Olenivka vill., Volyntsivske reservoir coast, 18–19.06.2011, 1 ♂, 1 ♀ (Vch. Martynov).

Results

P. globulicollis is recorded for the first time from Ukraine. Since it is often confused with the closely related *P. kaehleri*, we provide a comparative table of the diagnostic characters of these two species.

Purpuricenus globulicollis	***Purpuricenus kaehleri***
body is narrower, cylindrical (Fig. 1)	body is wider, flattened (Figs 2, 3)
antennas shorter: not reaching (female) or slightly extending beyond apex of elytra (male)	antennas longer: just reaching (female) or highly extending beyond apex of elytra (male)
pronotum is rounded, spherical (Fig. 4)	pronotum is transverse, flattened (Fig. 5)
thoracic lateral spines are short	thoracic lateral spines are long
pronotum is usually with big lateral red spots or with totally red anterior part	pronotum is usually totally black or with very small lateral red spots
apical emargination on each elytron is strong (Fig. 6)	apical emargination on each elytron is indistinct (Fig. 7)
punctation of elytral apices moderately finer than punctation of elytral base	punctation of elytral apices much finer than punctation of elytral base

It should be noted that all known specimens *P. kaehleri* from the South-East of Ukraine do not have red spots on the pronotum, that facilitates distinguishing it from *P. globulicollis*, even at field conditions.

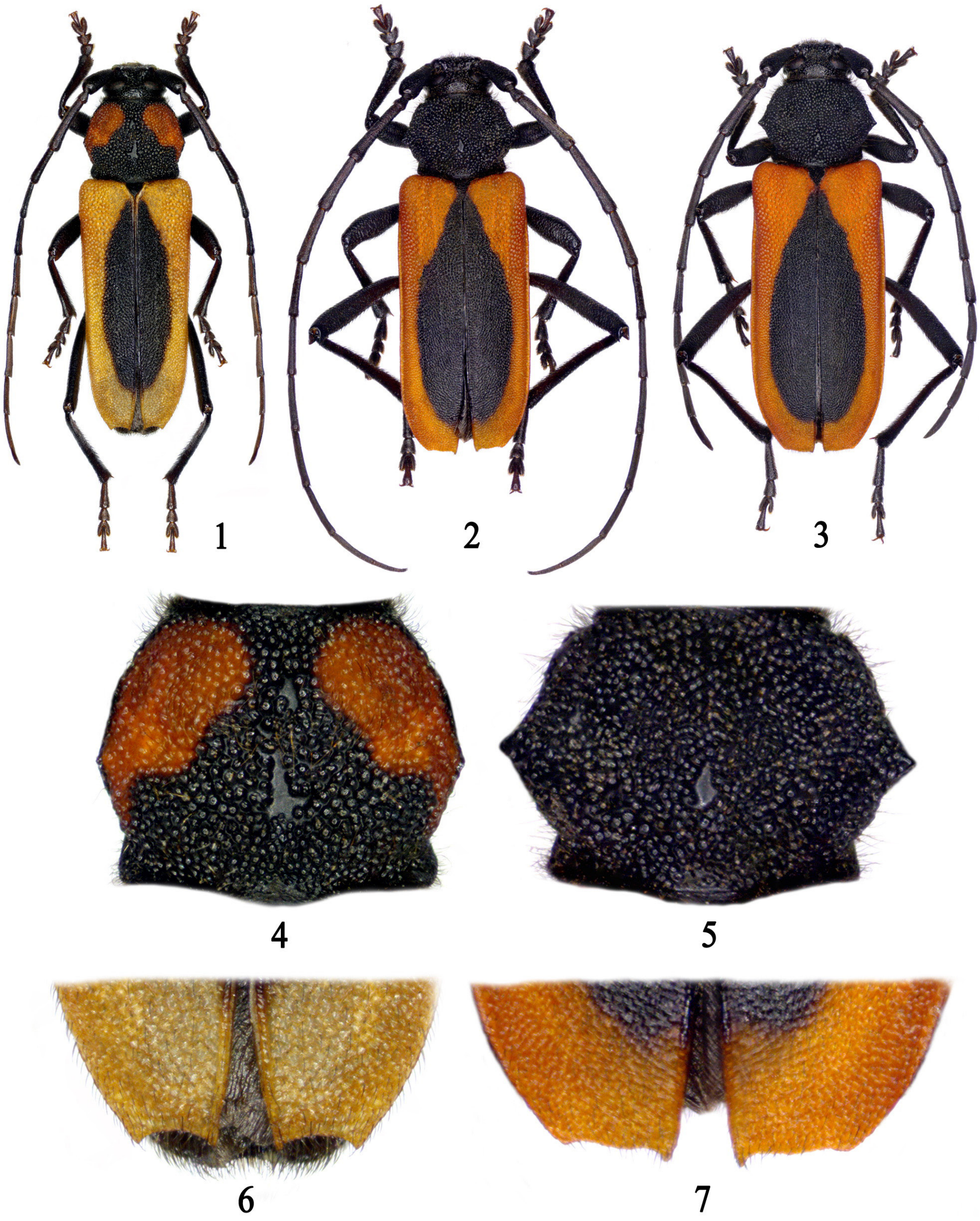
Discussion

Purpuricenus kaehleri is widespread from South-West Europe eastwards to West Siberia. It is known from many countries of Europe, including Portugal, Spain, France, Belgium, Germany, Austria, Switzerland, Czech Republic, all Balkan countries, Hungary, Poland, Belarus, Moldova and Ukraine, most of Central and South European regions of Russia up to Southern Urals, as well as European and west of Asian Turkey. The subspecies *P. kaehleri menetriesi* Motschulsky, 1845 occurs in the territory of the Russian Caucasus, Georgia, Azerbaijan, Armenia, Northern Iran and Eastern Turkey (Miroshnikov, 2012; Danilevsky, 2016). In Ukraine, *P. kaehleri* is known from the most regions, except the south of steppe zone. Everywhere it is rare and not numerous, listed in the Red Book of Ukraine and a number of regional Red Lists (Bartenev, 2009; Red Book…, 2009; Godlevska et al., 2010).

Purpuricenus globulicollis occurs from southern Europe to Western Siberia and Kazakhstan, but its areal is not quite clear as in many records it was mixed with *P. kaehleri* (Danilevsky et al., 2007). It is known from Spain, France, Austria, Switzerland, Czech Republic, Hungary and all Balkan countries (the subspecies *P. globulicollis skypetarum* Rapuzzi & Sama, 2014 occurrs in Albania, Macedonia, and Greece). The first correct identification of *P. globulicollis* in Russia was published by Shapovalov et al. (2006). Currently this species is known from Orenburg Reg., Udmurtia, Kirov Reg., Chuvashia, Ulyanovsk Reg., Penza Reg., Lipetsk Reg., Tambov Reg., Voronezh Reg., Volgograd Reg. and Rostov Reg. of European Russia and from Novosibirsk Reg., Altai Republic, Altai Krai, Kemerovo Reg., Tyumen Reg., Sverdlovsk Reg., Chelyabinsk Reg. and Orenburg Reg. in West Siberia (Danilevsky et al., 2007; etc.). In Ukraine, *P. globulicollis* has not previously been recorded, although the probability of its distribution here was noted (Danilevsky et al., 2007). This species is also noted everywhere as very rare.

Both species are known as rather polyphagous on different broad-leaved trees (*Quercus*, *Crataegus, Acer, Prunus, Rhamnus, Salix,* etc.) and inhabit different forest ecosystems.

Finding *P. globulicollis* in Donetsk Region, and the literature analysis allow assuming the possibility of further detection of this species in other regions of Ukraine. The priority for examination should be the regions of forest and wood-and-steppe zone. In the South-East of Ukraine it can be expected in the floodplain forests of the Siversky Donets River and in the ravin forests of the Donets Ridge.



Figs 1–7. *Purpuricenus globulicollis* (Figs 1, 4, 6), *P. kaehleri* (Figs 2, 3, 5, 7): 1, 2 — habitus, males; 3 — habitus, female; 4, 5 — pronotum; 6, 7 — elytral apices

It is also important to check the specimens of *Purpuricenus* in collections, to detect possibly misidentified specimens.

References

Bartenev, A. F. 2004. A review of the long-horned beetles species (Coleoptera: Cerambycidae) of the fauna of Ukraine. *The Kharkov Entomological Society Gazette*, 2003 (2004), **11** (1-2): 24–43. [In Russian].

Bartenev, A. F. 2009. *Long-horned beetles of Left-bank Ukraine and Crimea*. V. N. Karazin Kharkiv National University, Kharkiv: 1–405. [In Russian].

Bartenev, A. F. & Terekhova, V. V. 2011. An addition and remarks to the fauna of cerambycid beetles (Coleoptera, Cerambycidae) of Left-bank Ukraine and Crimea. *The Journal of V. N. Karazin Kharkiv National University. Series: biology*, 13 (947): 133–146. [In Russian].

Danilevsky, M. L. 2007. *Purpuricenus kaehleri* (Linnaeus, 1758) and *P. caucasicus* Pic, 1902 (Coleoptera, Cerambycidae) in Caucasus. *Studies and Reports of District Museum Prague-East, Taxonomical Series*, **3**: 31–42.

Danilevsky, M. L. 2015. A new species of the genus *Purpuricenus* Dejean, 1821 (Coleoptera: Cerambycidae) from the Caucasus. *Caucasian entomological bulletin*, **11** (2): 385–388.

Danilevsky, M. L. 2016. Catalogue of Palaearctic Cerambycoidea. Updated: 09.05.2016. *http://cerambycidae.net/catalog.pdf*

Danilevsky, M. L., Dedyukhin, S. V., Egorov, L.V., Kadyrbekov, R. Kh., Kasatkin, D. G., Shapovalov, A. M. 2007. *Purpuricenus globulicollis* Dejean in Mulsant, 1839 – a Mediterranian longicorn-beetle (Coleoptera: Cerambycidae) in the fauna of Russia and Kazakhstan. *Russian Entomological Journal*, **16** (1): 63–69.

Godlevska, O., Parnikoza, I., Rizun, V., Fesenko, H., Kutsokon, Yu., Zagorodniuk, I., Shevchenko, M., Inozemtseva, D. 2010. Fauna of Ukraine: conservation categories. Reference book. The 2nd edition. Kyiv: 1–80. [In Ukrainian]

Löbl, I. & Smetana, A. (ed.) 2010. *Catalogue of Palearctic Coleoptera, Vol. 6. Chrysomeloidea*. Apollo Books, Stenstrup: 1–924.

Martynov, V. V. & Pisarenko, T. A. 2004. A review of the fauna and ecology of the long-horned beetles (Coleoptera: Cerambycidae) of southeast Ukraine. *The Kharkov Entomological Society Gazette*, 2003 (2004), 11(1-2): 44–69. [In Russian].

Miroshnikov, A. I. 2012. Contribution to the knowledge of the longicorn beetles of the Caucasus. 8. Genus *Purpuricenus* Dejean, 1821 (Coleoptera: Cerambycidae). *Caucasian entomological bulletin*, **8** (1): 37–50. [In Russian].

Red Book of Ukraine. Animal world. 2009. Globalconsalting, Kyiv: 1–600. [In Ukrainian].

Shapovalov, A. M., Nemkov, V. A., Rusakov, A. V., Shovkun, D. F. 2006. Longicorn beetles (Coleoptera, Cerambycidae) of Orenburg Region. *Vestnik of Orenburg State University*, **4** (54): 105–109. [In Russian].

Received 26.01.2017 Accepted 23.04.2017 Published 28.04.2017

© 2017 A. I. Gubin & V. V. Martynov